Ministry of Environmental Protection

1997-1998 Operational Plan

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Preface

Albertans enjoy abundant natural renewable resources and beautiful landscapes that are the envy of the world. Alberta's clean environment and our sustainable management of our natural resources contribute to our high quality of life. As reflected in our Ministry's mission statement, we are committed to preserving the health and viability of Alberta's renewable natural resources and supporting the managed development of our industries.

The Ministry of Environmental Protection, including the Environmental Appeal Board, the Natural Resources Conservation Board and the Department of Environmental Protection, has contributed to a healthy environment, healthy Albertans and the Alberta Advantage. Our consolidated annual report illustrates these accomplishments. Our most recent report, the 1995-96 Annual Report, clearly links what we said we would do with our results for that year.

In addition to our commitment to environmental protection, we are also committed to continuous improvement. Our commitment has resulted in many changes to how we operate and how we provide information. For example, Information Technology Business Plans are now being developed, as are Research Business Plans. These business plans, together with our consolidated Ministry Business Plan provide a road map for us to follow for the next three years.

Early in 1996, a thorough review of Ministry functions was undertaken. As a result, we have more clearly focussed our activities on steering not rowing. We are delivering our core businesses more efficiently and effectively and are staying on target in terms of our spending reductions. We have also reviewed the statements which defined our mission, operating principles, core businesses, goals and performance measures. We have fine-tuned these to more accurately reflect the Ministry's contribution to the Alberta Government's core businesses: People, Prosperity and Preservation.

Operational Plan for 1997-1998

The Ministry of Environmental Protection has developed a Business Plan for the period from 1997-1998 to 1999-2000. This Business Plan outlines the Ministry's direction for the next three years through broad goals and strategies. The Operational Plan provides more information of what the Ministry expects to accomplish in the next fiscal year, by identifying some of the on-going activities within the Ministry and some project-related initiatives. Information for the 1997-1998 fiscal year is provided within the framework of the Ministry's 1997-2000 Business Plan.

Our Mission

Alberta is a province diverse in landscape, lifestyle, culture and commerce. Albertans want our present environmental, economic and societal strengths to be our legacy to future generations. Our mission in Alberta Environmental Protection is:

As proud stewards of Alberta's renewable natural resources, we will protect, enhance and ensure the wise use of our environment. We are a dedicated and committed team, responsible for managing these resources with Albertans. We are guided by a shared commitment to the environment and are accountable to our partners, the people of Alberta.

Operating Principles

In conducting our business, we are guided by our belief in:

Shared Responsibility: We share the responsibility for managing and protecting the environment with all Albertans and with other levels of government.

Public Involvement: We provide Albertans with the opportunity to contribute to decisions that affect the environment.

Customer Service: We are dedicated to service excellence in all regions of Alberta.

Resource Sustainability: We promote the wise use of our renewable resources within ecosystems so that future generations may continue to benefit from them.

Informed Decision-Making: We use leading-edge information in making decisions that affect the management and protection of the environment.

Core Business

Our two core businesses focus on our mission. They reflect the Ministry's functions and activities.

Core Business 1: Resource Management

The Ministry of Environmental Protection develops and implements legislation, policies, plans and programs; sets standards; monitors compliance; conducts monitoring, renewable resource inventories and environmental impact assessments; and issues approvals which ensure sustainable use of Alberta's renewable natural resources.

Core Business 2: Environmental Hazard Management

The Ministry of Environmental Protection reduces the risks of environmental hazards to people, property and the sustainability of our renewable natural resources through fire fighting, flood control, problem wildlife control, spill response and reclamation.

Goals

Our three goals reflect how the core businesses will be delivered. These goals contribute to the achievement of the government's core businesses (People, Prosperity, Preservation) and reflect government priorities. Strategies for each goal have also been identified.

Goal 1: ***To protect and maintain Alberta's high quality air, land and water for the health and enjoyment of Albertans.***

Strategy 1.1: Establish acceptable standards for air, land and water quality.
Strategy 1.2: Monitor, assess and take action to maintain the quality of Alberta's air, land and water.
Strategy 1.3: Actively promote understanding and improve knowledge of Alberta's environment.
Strategy 1.4: Provide Albertans with opportunities to contribute to environmental protection and natural resource management.

Goal 2: ***To manage Alberta's renewable resources for the continued prosperity and benefit of Albertans.***

Strategy 2.1: Provide clear, effective direction and guidance for the use, management and development of Alberta's renewable natural resources.
Strategy 2.2: Streamline regulatory processes and legislative requirements.
Strategy 2.3: Reduce impact of natural hazards (fire, drought, flood, pests) on people, property and resources.

Goal 3: ***To protect and manage Alberta's natural heritage for present and future generations.***

Strategy 3.1: Establish acceptable levels of protection for natural resources and ecosystems.
Strategy 3.2: Monitor, assess and take action to protect natural resources and ecosystems.

Toward Achieving Ministry Goals: Strategies, Expected Results, Activities, Performance Measures

A number of strategies have been identified that contribute to the achievement of Ministry goals. These are shown on the pages that follow along with the results the Ministry expects to achieve with the implementation of the strategy. While some of these strategies support more than one goal, each strategy has been included only once, listed under the goal which it supports most directly.

Many activities are undertaken across the Ministry in support of each goal and strategy. Some of the on-going and new activities that will take place over the 1997-98 fiscal year are identified for each strategy.

The linkage between the Ministry's goals and strategies, and the Ministry's program areas is shown on page 4. As the table illustrates, the relationship between the Ministry's goals and strategies and Ministry program areas is complex. The Ministry manages renewable natural resources (air, land, water, timber, fish and wildlife) and also the systems in which they occur (forests, parks, ecosystems, watersheds, airsheds). As a result, although an area of the Ministry may focus on managing a specific resource, that management is done within the broader perspective of the system.

Some activities within the Ministry cannot be distinguished as supporting one or another goal or strategy. These activities (such as financial management; communications; information systems development, management and implementation; human resources management and development; strategic and business planning; facility management; mail and courier services; creative and print production) support all Ministry undertakings. Advances and new initiatives within these areas (such as the implementation of IMAGIS (a new Alberta Government information management system), the development of a new human resources strategy and the coordination of the functional review) contribute to the overall effectiveness and efficiency of the Ministry.

The Ministry's effectiveness in working towards its goals and expected results is reported through seven key performance measures:

- air quality index
- species at risk
- surface water quality index
- area of parks and natural reserves in Alberta
- reduction of municipal solid waste to landfills
- timber sustainability
- pulp production versus the amount of substances discharged

The Ministry measures reflect broad environmental conditions or outcomes over which the Ministry has some influence. The measures may apply to more than one goal.

Shown below current Ministry measures are proposed new performance measures being considered by the Ministry for future use. Measures will be constantly assessed for their effectiveness in communicating important information on the Ministry's performance regarding environmental protection.

Within the Ministry, each Service and Board has proposed their own performance measures to gauge their effectiveness and efficiency in service delivery. These operational and internal performance measures are shown as "related measures" in the column beside the most appropriate Ministry key performance measure. The related measures are not intended to "add up" to a Ministry measure; rather, they are independent measures that are being developed and/or reviewed for internal monitoring purposes. These internal measures, together with the Ministry measures, will continue to be reviewed and improved to ensure that they accurately reflect the nature of the Ministry's business.

The Ministry also contributes to several government measures reported in "Measuring Up". These measures include: Resource Wealth, Resource Sustainability, and Air, Water and Land Quality.

Relationship of Ministry Goals and Strategies to Ministry Program Areas

Ministry Goals	**Goal 1:** Quality of Life, Health				**Goal 2:** Prosperity			**Goal 3:** Natural Heritage	
Ministry Strategies	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2
Program Areas: **Land & Forest Service**									
Forest Management	✓	✓	✓	✓	✓	✓		✓	✓
Forest Protection			✓				✓	✓	
Land Administration					✓	✓			
Fire Suppression							✓		
Regional Operations		✓	✓	✓	✓		✓	✓	✓
Natural Resources Service									
Water Resources Management	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fish & Wildlife Management	✓	✓		✓	✓	✓	✓	✓	✓
Recreation and Protected Areas			✓	✓	✓			✓	✓
Regional Operations		✓	✓	✓			✓	✓	✓
Corporate Management Service									
Strategic & Regional Support	✓	✓	✓	✓	✓	✓	✓	✓	✓
Resource Data			✓	✓	✓	✓		✓	✓
Information Management			✓	✓	✓	✓			
Human Resources	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special Places 2000			✓	✓	✓			✓	✓
Regional Operations			✓	✓	✓	✓		✓	✓
Environmental Regulatory Service									
Air & Water Approvals	✓	✓	✓	✓		✓		✓	✓
Chemicals Assessment and Management	✓	✓	✓	✓	✓	✓		✓	✓
Environmental Assessment & Waste Mgmt Assist.	✓	✓	✓	✓		✓			✓
Land Reclamation	✓	✓		✓		✓		✓	
Pollution Control			✓			✓			✓
Regional Operations		✓	✓	✓		✓		✓	✓
Natural Resources Conservation Board	✓		✓	✓	✓	✓		✓	✓
Environmental Appeal Board		✓	✓	✓	✓	✓	✓	✓	✓

Goal 1: To protect and maintain Alberta's high quality air, land and water for the health and enjoyment of Albertans.

Background to Strategy 1.1:

Alberta Environmental Protection has a mandate under legislation to establish guidelines and ambient environmental quality objectives for all or part of Alberta. These guidelines or objectives identify the levels of certain compounds that are considered safe in the environment. The *Alberta Ambient Air Quality Guidelines* and the *Alberta Ambient Surface Water Quality Interim Guidelines* are two examples of such guidelines.

Alberta Environmental Protection also develops source standards which set out limits on how much of a substance can safely be emitted to the environment from industrial and municipal plants. Source standards specify processes and technologies that control emissions to a level below the established guideline or objective for that substance.

Situations may arise where new or updated guidelines or objectives are needed for a compound of concern. Improved scientific evidence may indicate that a particular compound requires more attention or occurs in the environment at levels that are naturally higher than current guidelines allow. In response to the new information, new or updated guidelines or objectives will be established referencing provincial, federal and international guidelines where appropriate, and following public and stakeholder consultations.

Strategy 1.1	Expected Results
• Establish acceptable standards for air, land and water quality.	• High quality of air, water and land.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Develop ambient environmental quality guidelines for compounds such as: particulate matter (PM_{10}), ozone and ethylene (for air), and copper, mercury and methylmercury (for water). • Establish "codes of practice" for continuous emission monitoring and sludge disposal. • Establish standards, guidelines and codes of practice for municipal water treatment and distribution systems, wastewater treatment and storm drainage facilities. • Rewrite land treatment guidelines for industrial waste. • Implement the Northern River Basins Study recommendation to adopt the CCME (Canadian Council of Minister's of the Environment) dissolved oxygen guideline.	• Contribute to the ongoing development of national guidelines and standards for water quality through the CCME. • Contribute to the ongoing development of national guidelines and standards for the management of hazardous waste, contaminated sites, packaging and toxic substances through the CCME.

Ministry Performance Measure	Related Measures
• Air quality index.	• The mass emission of sulphur dioxide per unit raw sour gas production. • Percentage of hours that measured concentrations of sulphur dioxide are within the Air Quality Guidelines.

Ministry Performance Measure	Related Measures
• Surface water quality index.	• The mass of key substances discharged to surface waters from industrial wastewater treatment facilities. • Municipal potable water treatment plants fully meeting departmental design standards. • Ground water quality changes related to industrial source emissions.
• Reduction of municipal solid waste to landfills.	• Reduction in municipal solid waste disposal in Alberta.

Background to Strategy 1.2:

Once ambient environmental quality guidelines and emission standards are developed, Alberta Environmental Protection is able to issue approvals to industry which specify allowable emissions that are within the limits established by the guidelines, objectives and standards. In order to ensure that emission levels do not exceed emission standards, air and surface water is monitored by Alberta Environmental Protection through permanent and mobile monitoring stations. Land quality is monitored to ensure that there is not an unacceptable risk from contaminants and disturbed sites are restored.

If monitoring shows that environmental quality is not being maintained to levels specified in operating approvals, then corrective measures are taken by Environmental Protection.

Strategy 1.2	Expected Results
• Monitor, assess and take action to maintain the quality of Alberta's air, land and water.	• Industry compliance with regulatory requirements. • High environmental quality in Alberta. • Sound science and data are used to make management and allocation decisions.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Develop guidelines and standards for monitoring plant operations. • Investigate PCB contamination in the Wapiti, Smoky, Peace and Athabasca Rivers. • Coordinate a response to the Northern River Basins Study recommendations together with the Northwest Territories, and the federal government.	• Operate a network of mobile and stationary monitoring stations to measure the quality of air, soil and ground water. This involves data collection, monitoring, processing and reporting. • Monitor and assess water quality upstream and downstream of major centres to determine a river's suitability for recreation, aquatic life and agricultural purposes. • Issue clear and enforceable resource use approvals for: waste management facilities; industrial plants that have wastewater and air emissions; municipal wastewater, storm drainage and water works systems; surface mines, oil sands and facilities, pipelines, pits, peat operations and coal processing plants; beverage container depots; pesticide storage sites. • Work with approval and registration holders to maintain and improve their facility's performance.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
	• Continue to inspect and monitor regulated activities to ensure they comply with environmental protection legislation. • Operate an administrative and approvals system for making public land available for agricultural, commercial and industrial users. • Maintain an enforcement program. • Designate and ensure the clean up and decommissioning of contaminated sites. • Provide effective and efficient emergency response to hazardous emissions and spills. • Issue reclamation certificates. • Provide sound appeal procedures, and consider appeals as expeditiously as possible. • Issue clear and consistent decisions on environmental appeals.

Ministry Performance Measures	Related Measures
• Air quality index.	• The mass emission of sulphur dioxide per unit raw sour gas production. • Percentage of hours that measured concentrations of sulphur dioxide are within the Air Quality Guidelines.
• Surface water quality index.	• The mass of key substances discharged to surface waters from industrial wastewater treatment facilities. • Municipal potable water treatment plants fully meeting departmental design standards.
• *Compliance with environmental regulations.**	• Level of industry compliance in meeting timber sampling objectives. • Level of compliance with conditions established in land use dispositions. • Level of compliance with protected areas, wildlife and fisheries legislation. • Proper reclamation/remediation of land disturbed or contaminated.
• *Number of waterborne disease outbreaks attributable to the failure of licensed water treatment systems..**	

**New measure under consideration.*

Background to Strategy 1.3:

Enforcing compliance of environmental protection regulations is one way of ensuring that environmental quality is maintained. Another is providing industry and the public with information regarding the environment, so that they can make informed decisions which protect and maintain environmental quality.

Strategy 1.3	Expected Results
• Actively promote understanding and improve knowledge of Alberta's environment.	• Albertans have better understanding of environmental issues.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Implement the Forest Education Strategy. • Implement the Forest Fire Prevention Program. • Develop a protected areas education strategy. • Produce a State of the Environment Report for 1997-98.	• Provide industry and the public with information on the environment, resources, environmental protection and Ministry programs as requested. • Provide heritage appreciation extension services. • Foster awareness and appreciation of the value of representative, special and outstanding natural landscapes and features. • Increase the profile and awareness of the importance of Alberta's system of recreation and protected areas. • Contribute to the national standardization of environmental information dissemination and education through the CCME.

Ministry Performance Measures	Related Measures
• Reduction of municipal solid waste to landfills.	• Reduction in municipal solid waste disposal in Alberta.
• *Environmental/resource awareness in Alberta schools and the general public.**	• Increased level of awareness about forestry issues within Alberta schools and the general public. • Client satisfaction with information services provided.

**New measure under consideration.*

Background to Strategy 1.4:

Albertans have a stake in the protection of the environment. As such, Albertans are given the opportunity to contribute to the development of environmental initiatives such as new legislation and resource planning, through various public involvement processes.

Strategy 1.4	Expected Results
• Provide Albertans with opportunities to contribute to environmental protection and natural resource management.	• Increased opportunity for meaningful public participation in environmental decision making.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Delegate responsibility for programs formerly under the Fish and Wildlife Trust Fund to the Alberta Conservation Association. • Complete the review of Rules of Practice and Intervener Funding Regulations.	• Provide public involvement opportunities through the Minister's Advisory Committee on Environmental Protection, Special Places Provincial Coordinating Committee, various resource planning activities and working groups, and other public processes such as the Clean Air Strategic Alliance. • Provide Albertans the opportunity to voice their opinions regarding resource development initiatives through the Environmental Appeal Board and Natural Resources Conservation Board. • Initiate and coordinate the development of waste stewardship initiatives of industry. • Provide financial incentives to municipalities to develop an effective waste management infrastructure. • Continue the dialogue with municipal authorities relative to the nomination of additional Alberta rivers to the Canadian Heritage Rivers System. • Implement the Eastern Slopes fisheries management regulations public consultation program.

Ministry Performance Measures	Related Measures
• *Satisfaction with public consultation processes.**	• Stakeholder satisfaction with the Alberta Forest Conservation Strategy development process. • Participant satisfaction with the Environmental Appeal Board's and Natural Resources Conservation Board's processes from the perspective of fairness, impartiality, timeliness and efficiency.

**New measure under consideration.*

Goal 2: To manage Alberta's renewable resources for the continued prosperity and benefit of Albertans.

Background to Strategy 2.1:

Development of Alberta renewable natural resources contributes to the wealth of all Albertans. To ensure that our resources are able to renew themselves for the next generation of use, specific guidelines for their use have been developed. These guidelines are reviewed from time to time to ensure that they are based on the best available scientific information.

Strategy 2.1	Expected Results
• Provide clear, effective direction and guidance for the use, management and development of Alberta's renewable natural resources.	• Renewable natural resources are managed sustainably.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Clarify the government's role in continuing to responsibly manage important examples of Alberta's natural heritage, while maintaining opportunities for outdoor recreation. • Complete the Alberta Forest Conservation Strategy report and recommendations and submit the report for the Alberta Government's review. • Complete a species management plan for the Arctic grayling. • Publish the Fish Conservation Strategy for Alberta.	• Continue to develop guidelines for the use, conservation and management of public land and forest resources. • Contribute to the development of international standards for forest sustainability. • Promote and support sustainable resource-based activities associated with the Province's water, fish, wildlife and park resources (e.g., commercial fishing, outfitters/guides, trappers, parks service providers). • Provide resource-based recreational opportunities (e.g., park visitation, hunting, fishing). • Manage land use activities within the Green Area in accordance with approved policy, plans and conditions (through the use of administrative, reporting and approvals system operations). • Seek partnership opportunities with local governments, industry and Aboriginal interests to address resource data, resource planning, and resource management needs and activities.

Ministry Performance Measures	Related Measures
• Timber sustainability.	• Stand yield, average stem sizes, reforestation lag periods, long-term sustainable harvest rates, rotation ages, wood quality, and climate and pest hardiness. • Area harvested which meets treatment, establishment, and performance standards, as a percentage of the total area expected to meet the applicable standard(s). • Land class area changes.
• *Alberta parks visitation rate.**	• Person-days of recreation. • Participation rate and percent satisfied with recreation.

**New measure under consideration.*

Background to Strategy 2.2:

The Ministry of Environmental Protection worked with the Regulatory Reform Task Force, chaired by Gary Friedel, MLA for Peace River, to develop the Ministry of Environmental Protection's Regulatory Reform Action Plan. The Action Plan is available to the public.

An implementation plan has also been prepared. The plan provides that the majority of the Ministry's regulations are scheduled to expire, unless re-enacted by 1998. The majority of Ministry regulations were under review in 1996; all but two regulations will be reviewed by 1998. As regulations are reviewed by the Regulatory Reform Task Force in the next three years, the inclusion of an additional sunset clause must be addressed.

Strategy 2.2	Expected Results
• Streamline regulatory processes and legislative requirements.	• A simpler, more streamlined regulatory process. • Integration of Ministry regulatory activities. • Reduced costs to individuals and businesses requiring regulatory approvals. • Elimination of regulatory duplication and overlap. • Implementation of innovative alternatives to regulation to provide greater flexibility to clients.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Implement the Regulatory Reform Action Plan. • Initiate legislative reviews for the *Forests Act, Public Lands Act,* and *Provincial Parks Act*; address the inclusion of sunset clauses in regulations. • Consolidate and integrate Alberta's protected areas legislation. • Commence work on three sub-agreements for the Canada-wide Accord on Environmental Harmonization (monitoring and reporting, environmental emergency response, and research and development). • Work towards finalizing the Canada-wide Accord on Environmental Harmonization, and three environmental sub-agreements (standards, inspections, and environmental assessment). • Participate in the review of delegation of habitat protection responsibilities under the Fisheries Act (Canada) to provinces. • Complete the review of the Drainage Districts Act. • Work with Environment Canada to have provincial responsibility for environmental protection recognized in the proposed Canada Environmental Protection Act.	• Continue to streamline approvals and other processes within the Ministry. • Recommend changes to environmental protection legislation. • Continue to streamline federal and provincial (NRCB) intervener funding programs for joint reviews.

Ministry Performance Measures	Related Measures
• *Stakeholder satisfaction with processes.**	• Percent of deregulation plan implemented. • Degree to which environmental management has been harmonized between the federal and Alberta governments.

**New measure under consideration.*

Background to Strategy 2.3:

Forest fires, floods from spring runoff, wildlife and insects all have the potential to cause damage to human life, personal property and the environment. These environmental hazards may be the result of natural events, or the result of human error. These environmental hazards are managed when they occur.

Strategy 2.3	Expected Results
• Reduce impact of natural hazards (fire, drought, flood, pests) on people, property and resources.	• People, property and resources are protected.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Design and implement cost-effective wildfire pre-suppression plans and programs. • Develop a new forest fire management system that improves our ability to manage resources required for wildfire suppression. • Rebuild real-time weather and stream flow data acquisition system that provides information for flood forecasting. • Design and implement an effective wildlife damage mitigation program.	• Suppress wildfires within the "Forest Protection Area" and adjacent cooperative zones. • Provide fire suppression resources as per the Mutual Aid Resource Sharing Agreement. • Use fuel modification and forest harvesting techniques to reduce the risk of wildfire. • Regulate fire activities through fire permits, patrols and inspections. • Operate fixed and mobile fire detection networks and a lightning detection system. • Operate a fire weather monitoring network. • Monitor and predict fire hazard and behaviour. • Utilize infra-red capabilities to detect wildfires. • Operate the 427-FIRE phone line for the public to report wildfires. • Limit forest resource losses by detecting, monitoring and controlling major forest pests and disease. • Identify and make the public aware of flood risk areas. • Forecast water flows and provide flood warnings. • Regulate, maintain and upgrade the safety of dams, dikes and other water impoundment structures. • Conduct routine exercises for Flood Action and Emergency Preparedness Plans. • Prevent and mitigate the adverse effects of wildlife.

Ministry Performance Measures	Related Measures
• Timber sustainability.	• The number of person-caused forest fires in the forest protection area, compared to the previous 10 year rolling average. • Percent of fires detected before reaching 0.1 hectares in size. • Percent of wildfires actioned before reaching 2.0 hectares in size. • The annual burn area as a percentage of the land under protection. • Percent of fires being held before the second burning period (before 10:00 a.m. the following day). • Percent of major pest outbreaks detected within their first year. • Forest pest losses as a percent of the committed annual allowable cut.
	• Number of dams requiring Flood Action Plans and Emergency Preparedness Plans that have them in place. • Percent of affected urban communities for which 1-in-100 years flood plain is identified. • Percent of infrastructure maintained adequately. • Percent of human safety related bear incidents satisfactorily resolved.

Goal 3: To protect and manage Alberta's natural heritage for present and future generations.

Background to Strategy 3.1:

Alberta Environmental Protection recognizes that the environment is more than just the air, the water, the land, the wildlife, and the trees that are used for personal and economic benefit. The environment is a complex interaction of systems. These systems *collectively* must be protected for the future.

Strategy 3.1	Expected Results
• Establish acceptable levels of protection for natural resources and ecosystems.	• Ecosystem and natural resources are protected. • Biodiversity is sustained.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Develop, implement and monitor Ministry policies and legislation for special places, forest management, wetlands and public land. • Develop a comprehensive statement of Provincial Integrated Natural Resource Policies and implement them through resource use and management decisions. • Develop a strategy for the protection of aquatic environments. • Develop a framework for water management planning.	• Protect representative landscapes through the Special Places and Canadian Heritage Rivers System programs. • Continue to develop an ecosystem based forest management framework to provide clear directions for the use, conservation and management of provincial forest lands. • Maintain forest improvement programs to enhance tree, stand and site productivity while maintaining species diversity. • Promote a coordinated approach to Aboriginal and intergovernmental relations. • Issue clear and consistent decisions on environmental appeals.

Ministry Performance Measures	Related Measures
• Species at risk.	• Percent of major basin watersheds that have ecosystem structure and function framework in place. • Percent of watersheds for which management goals are established.
• Areas of parks and natural reserves in Alberta.	• Percent of protected natural landscapes goal attained.
• *Alberta parks visitation rate.**	• Percent of utilization of heritage appreciation opportunities.

**New measure under consideration.*

Background to Strategy 3.2:

To ensure that ecosystems are being protected, Environmental Protection monitors ecosystem conditions, sets guidelines and standards for ecosystems, and enforces the conditions laid out in approvals. A tool utilized by Environmental Protection for such monitoring is the Environmental Impact Assessment process. Through this process, the impacts on the environment of proposed, existing or cumulative activities can be gauged, and appropriate action taken by the Ministry to protect people, property and the environment.

Strategy 3.2	Expected Results
• Monitor, assess and take action to protect natural resources and ecosystems.	• Ecosystems and natural resources are protected. • Sound science and data are used to make management and allocation decisions.

Project-Related Activities for 1997-1998	Ongoing Activities for 1997-1998
• Develop a framework for water management planning. • Develop a strategy for the protection of aquatic environments.	• Collect reliable and scientifically based natural resource and land based data. • Develop and maintain databases for natural resource and land related data. • Conduct surveys to evaluate the impact of forest pests and disease on forest stands, nursery stock and seed orchards. • Operate an administrative and reporting system for timber harvesting. • Inventory and enhance fish and wildlife resources and their availability. • Allocate fish, wildlife and water resources fairly and equitably, and monitor their use. • Manage the Environmental Impact Assessment process, including: conducting initial reviews; preparing screening reports; reviewing and issuing terms of reference for EIAs; reviewing EIA reports; and participating in independent Board hearings (such as the EUB and NRCB). • Investigate and evaluate the environmental suitability of potential waste disposal sites. • Monitor watershed ecosystem and resource status and trends. • Integrate the management of watershed ecosystems and resources. • Protect watershed ecosystems and resources through enforcement activities. • Restore watershed ecosystems and resources identified as being in jeopardy. • Ensure all harvested areas are reforested to current standards.

Ministry Performance Measures	Related Measures
• Pulp production versus amount of substances discharged.	• Percent of watershed that meet Alberta Surface Water Quality Interim Guidelines. • The mass of key substances discharged to surface waters from industrial wastewater treatment facilities.
• Areas of parks and natural reserves in Alberta.	• Percent of watersheds meeting management goals. • Percent of protected natural landscapes goal attained.
• *Percent of inter-jurisdictional water commitments satisfied.**	• Percent of resource use carried out in sustainable manner.

**New Measure under consideration.*

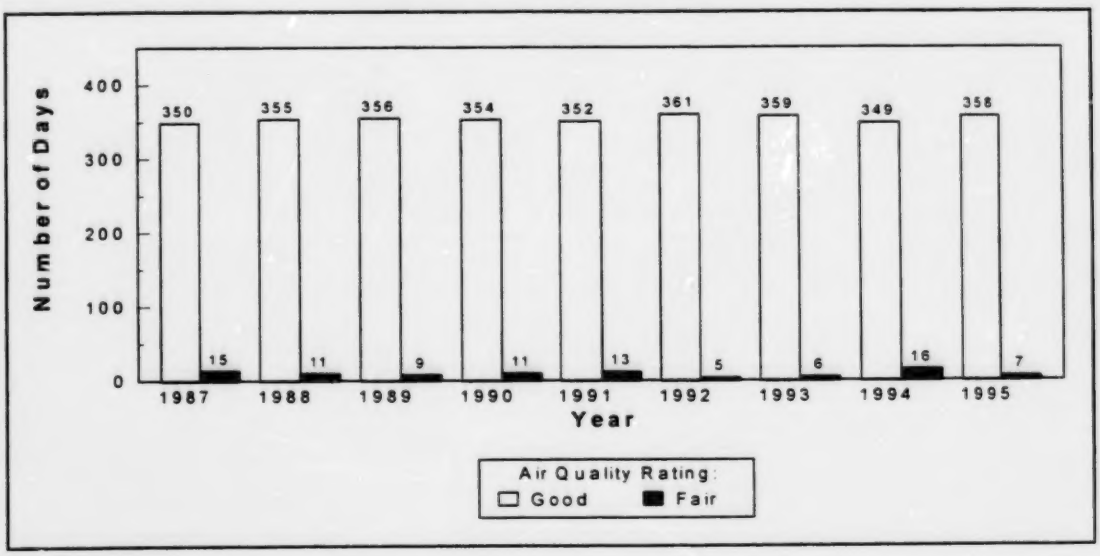
Performance Measures

Performance measurement is increasingly important for performance improvement and for Ministry resource allocation decisions. Measuring performance focuses attention on the Ministry's key results providing the link between our business plan goals (what we say we will do) and our results (what we accomplish). Achievement of our goals contributes to the success of our business plan, as well as to the government's overall performance.

A description of each of the seven Ministry performance measures follows, along with the target to be achieved.

Air Quality Index

Ensuring the protection of Alberta's clean air is paramount to maintaining Albertan's health and quality of life. This measure provides an indication of the quality of air in Alberta throughout the year at selected locations in the province (including Edmonton, Calgary, Fort Saskatchewan and Fort McMurray). The target is to maintain air quality at levels which are considered "good" or "fair" at all times.



Surface Water Quality Index

The quality of surface water (rivers and lakes) is determined by a combination of physical, chemical and biological factors. This measure focuses on river water quality because the impacts of human activities are generally more evident in rivers than in lakes. To monitor the state of Alberta's rivers, several variables (e.g., coliform bacteria, nutrient, pH, oxygen, metals) are routinely tested and evaluated against acceptable levels identified in the *Alberta Ambient Surface Water Quality Interim Guidelines*.

The percentage of tests which meet these guidelines can be used to determine water quality at a particular site. The quality of water affects a river's suitability for different purposes (e.g., recreation, agriculture and sustainability of aquatic life). The difference in water quality upstream and downstream of major centres provides an indication of human impacts on Alberta's rivers. The target is to bring river water quality downstream of developed areas in line with upstream conditions.

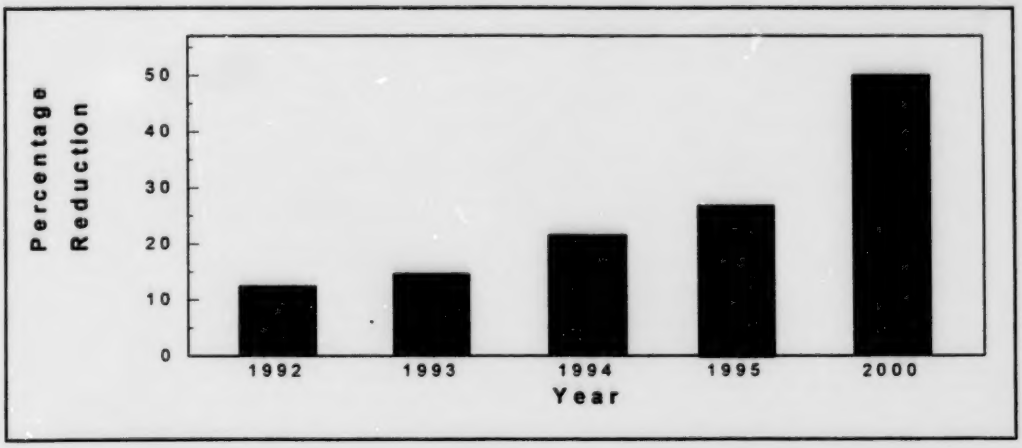
Location	Recreation	Aquatic Life	Agriculture	Issues-Concerns
SMOKY/PEACE RIVER				
at Watino	Poor	Fair	Good	pulp and municipal inputs
at Ft Vermilion	Poor	Fair	Good	
ATHABASCA				
at Athabasca	Fair	Good	Good	pulp and municipal inputs
at Old Fort	Fair	Fair	Fair	
NORTH SASKATCHEWAN RIVER				
Upstream Edmonton	Good	Good	Good	municipal and non-point pollution sources
Downstream Edmonton	Not Acceptable	Fair	Fair	
RED DEER RIVER				
Upstream Red Deer	Fair	Good	Good	municipal and non-point pollution sources
Downstream Red Deer	Not Acceptable	Fair	Good	
BOW RIVER				
Upstream Calgary	Fair	Good	Good	municipal and non-point pollution sources; reduced flow due to water withdrawal
Downstream Calgary	Not Acceptable	Fair	Good	
OLDMAN RIVER				
Upstream Lethbridge	Poor	Fair	Good	municipal and non-point pollution sources
Downstream Lethbridge	Not Acceptable	Fair	Good	

Based on percentage of compliant tests in 1993

Good water quality	very few tests not meeting guidelines	(100 - 96% compliance)
Fair water quality	guidelines not met occasionally	(95% - 86% compliance)
Poor water quality	guidelines often not met	(85% - 71% compliance)
Not Acceptable water quality	guidelines frequently not met	(70% compliance and lower)

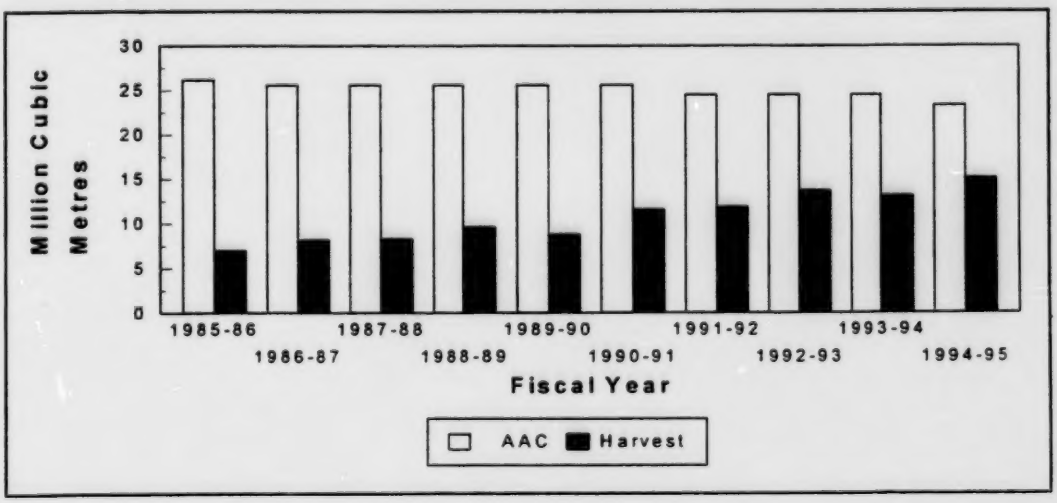
Reduction of Municipal Solid Waste to Landfills

Reducing waste contributes to resource conservation and is important in maintaining the quality of the environment. Reduction in waste to landfills is an indicator of the success of efforts to encourage Albertans to produce less waste. Environmental Protection has targeted to reduce the amount of municipal solid waste sent to landfills by 50 percent by the year 2000. The progress of Albertans towards this target will be measured on a per capita basis using a computerized waste tracking system. This measure is based upon the best available current information, using 1988 as the base year. The reduction for 1995 is an estimate based on municipalities that have reported to date.



Timber Sustainability

This measure compares the actual annual timber harvest to the approved annual allowable cut (AAC) of timber set by the province. The approved AAC is the maximum amount of timber that can be harvested each year. It reflects the land base available for timber harvesting and the forest management strategies applied to that land base. The target is for Alberta's annual timber harvest to be no greater than the AAC established by the government, thereby ensuring a timber supply for the future.



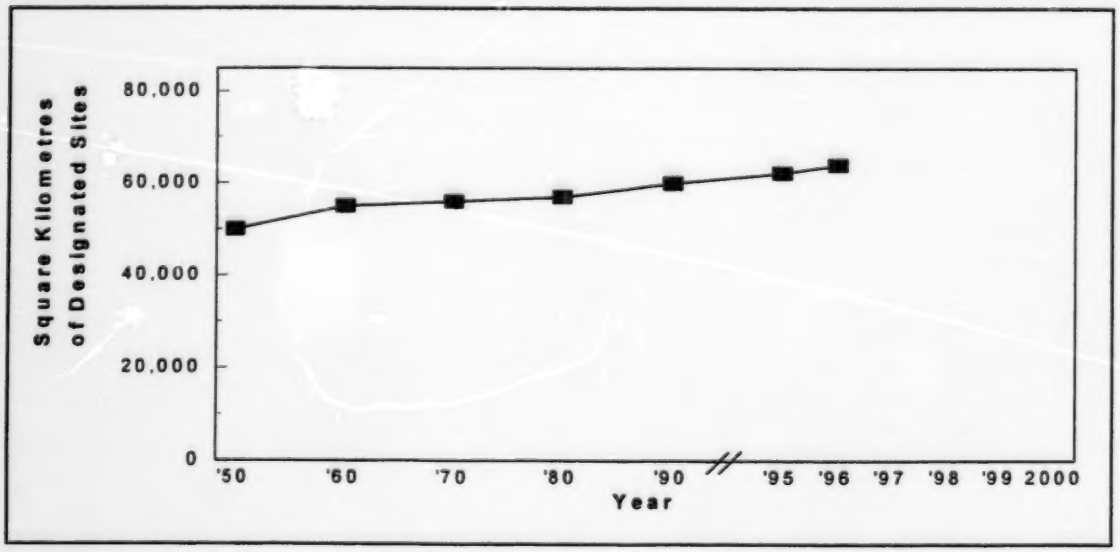
Species at Risk

The health of Alberta's fish and wildlife populations can be assessed by determining the proportion of species that are at serious risk, vulnerable/sensitive, healthy, or of undetermined status. For 1995-96, the vulnerable/sensitive category was refined to include "may be at risk currently" and "may be at risk - long term". Fish and wildlife are highly valued by Albertans, and activities such as hunting, fishing and wildlife viewing contribute $1.4 billion annually to Alberta's economy. The measure is based on a survey of the population status of fish and wildlife, conducted every five years. The target is to keep the percentage of species at serious risk below 5%.

Species Health	1990-91	1995-96
At Serious Risk	5%	2%
Vulnerable/Sensitive	20%	9%
Undetermined	20%	4%
Healthy	55%	85%

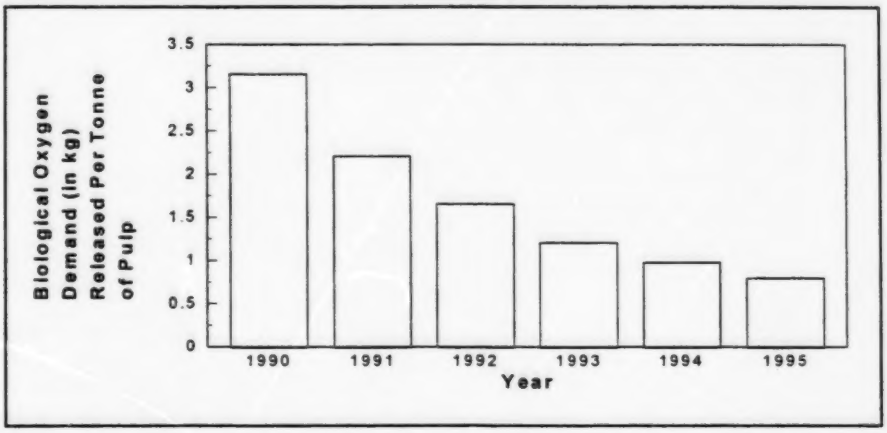
Area of Parks and Natural Reserves in Alberta

The designation of parks, natural reserves and related sites contribute to the protection, heritage appreciation, outdoor recreation and tourism/economic development goals of the government. The measure describes the total area of parks, natural reserves and related sites, including national parks, in Alberta. The target is to have 81 000 square kilometres of Alberta designated as parks, natural reserves and related sites (including national parks) by the year 2000.



Pulp Production Versus Amount of Substance Discharged

Oxygen is required in the breakdown of pulp mill wastewater. This breakdown may decrease the amount of oxygen available to aquatic organisms. Oxygen is necessary to keep aquatic ecosystems healthy. Keeping the levels of biochemical oxygen demand below the maximum allowed in rivers receiving pulp mill wastewater (3.02 kg), means that pulp mills are below their limits and that the aquatic ecosystem is being protected.



Environmental Protection
Ministry Consolidated Income Statement
(thousands of dollars)

	Comparable 1992-93 Actual	Comparable 1993-94 Actual	Comparable 1994-95 Actual	Comparable 1995-96 Actual	Comparable 1996-97 Forecast	1997-98 Estimates	1998-99 Target	1999-2000 Target
REVENUE								
Department	70,297	67,935	61,365	60,792	56,268	56,168	55,968	55,968
Environmental Protection Revolving Fund	4,518	5,111	14,640	20,332	29,782	25,860	25,868	25,868
Environmental Protection and Enhancement Fund	1,194	10,573	64,808	63,498	43,717	44,056	42,203	42,323
Fish and Wildlife Trust Fund	10,104	9,169	9,849	9,474	9,829	-	-	-
Alberta Special Waste Management Corporation	33,485	54,566	34,055	169,162	-	-	-	-
Natural Resources Conservation Board	1,780	932	1,244	920	1,086	1,397	1,233	1,233
Tire Recycling Management Board	4,142	8,811	9,549	10,103	5,214	-	-	-
Consolidated Adjustments	(38,226)	(57,763)	(45,220)	(181,301)	(18,829)	(20,606)	(20,450)	(20,450)
Consolidated Revenue	87,294	99,334	150,290	152,980	127,067	106,875	104,822	104,942
EXPENSE								
Program								
Voted								
Department	405,349	387,408	336,984	465,663	275,569	272,057	253,732	254,272
Statutory								
Environmental Protection Revolving Fund	4,601	4,665	14,142	18,892	28,853	25,367	25,375	25,375
Environmental Protection and Enhancement Fund	953	1,415	4,753	40,309	34,506	32,586	29,809	29,806
Fish and Wildlife Trust Fund	8,017	9,657	9,357	10,409	9,025	-	-	-
Alberta Special Waste Management Corporation	29,981	28,173	239,032	21,813	-	-	-	-
Natural Resources Conservation Board	1,631	1,439	1,239	998	1,023	1,422	1,253	1,250
Tire Recycling Management Board	858	2,335	2,593	6,467	5,802	-	-	-
Consolidation Adjustments	(45,158)	(57,743)	(230,524)	(187,025)	9,743	(20,606)	(20,450)	(20,450)
Consolidated Expense	406,232	377,349	377,576	377,526	364,521	310,826	289,719	290,253
GAIN (LOSS) ON DISPOSAL OF CAPITAL ASSETS AFTER CONSOLIDATION ADJUSTMENTS	70	30	15	(40)	4	(968)	-	-
NET REVENUE (EXPENSE)	(318,868)	(277,985)	(227,271)	(224,586)	(237,450)	(204,919)	(184,897)	(185,311)

For more details regarding the Ministry's revenue and expenses, see the *1997-98 Government and Lottery Fund Estimates*.